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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,352	08/17/2005	Rakesh K. Jain	00786/424003	5667

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EXAMINER	
REDDIG, PETER J	
ART UNIT	**PAPER NUMBER**
1642	

NOTIFICATION DATE	DELIVERY MODE
09/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentadministrator@clarkelbing.com

Office Action Summary	Application No.	Applicant(s)	
	10/507,352	JAIN ET AL.	
	Examiner	Art Unit	
	Peter J. Reddig	1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15,17,19,23 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-15, 17, 19, 23, and 25* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1, 4, 5, 6, 12-15, 17, 19, 23, 25, drawn to a method for selecting a combination therapy for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of: (a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from said mammal; and (b) selecting a therapy that comprises two or more compounds that each (i) decrease the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increase the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal.

Group 2, claim(s) 2, drawn to a method for preventing, delaying, or treating a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of: (a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from said mammal; (b) selecting a therapy that comprises two or more compounds that each (i) decrease the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increase the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal; and (c) administering said therapy to said mammal in an amount sufficient to treat, stabilize, or prevent said cancer or angiogenesis related disease.

Group 3, claim(s) 3, drawn to a method for stratification of subjects involved in a clinical trial of a combination therapy comprising two or more compounds for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of: (a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from a subject; and (b) determining the presence of a lower or higher than normal expression level for more than one mRNA and/or protein in said sample before, during, or after said clinical trial, wherein the presence of said expression profile in said subject places said subject into a subgroup for said clinical trial.

Group 4, claim(s) 7, 10-13, 15, 17, 19, 23, or 25, drawn to a method for selecting a signal transduction inhibitor for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of: (a) analyzing the expression profile of one or more mRNA molecules and/or proteins in a sample obtained from said mammal, wherein the expression or activity of said mRNA molecule or protein can be modulated by a signal transduction inhibitor; and (b) selecting a signal transduction inhibitor that (i) decreases the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increases the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal.

Group 5, claim(s) 8, 10, 11, drawn to a method for preventing, delaying, or treating a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of: (a) analyzing the expression profile of one or more mRNA molecules and/or proteins in a sample obtained from said mammal, wherein the expression or activity of said mRNA molecule or protein can be modulated by a signal transduction inhibitor; (b) selecting a signal transduction inhibitor that (i) decreases the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increases the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal; and (c) administering said signal transduction inhibitor to said mammal in an amount sufficient to treat, stabilize, or prevent said cancer or angiogenesis related disease.

Group 6, claim(s) 9, drawn to a method for stratification of subjects involved in a clinical trial of a signal transduction inhibitor for the treatment, stabilization, or prevention of a cancer or an angiogenesis related disease in a mammal, said method comprising the steps of: (a) analyzing the expression profile of one or more mRNA molecules and/or proteins in a sample obtained from a subject, wherein the expression or activity of said mRNA molecule or protein can be modulated by a signal transduction inhibitor; and (b) determining the presence of a lower or higher than normal expression level for one or more mRNA molecules and/or proteins in said sample before, during, or after said clinical trial, wherein the presence of said expression profile in said subject places said subject into a subgroup for said clinical trial.

An international and a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention "). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The

expression "special technical features " shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art, 37 CFR 1.475(a). When claims to different categories are present in the application, the claims will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (1) A product and a process specially adapted for the manufacture of said product; or (2) A product and a process of use of said product; or (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or (4) A process and an apparatus or means specifically designed for carrying out the said process; or (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process. If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims. Since multiple methods with different technical features are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims, see PCT article 17(3) (a) and 1.476 (c), 37 C.F.R. 1.475(d).

Lack of unity of invention may be directly evident "a priori," that is, before considering the claims in relation to any prior art, or may only become apparent "a posteriori," that is, after taking the prior art into consideration. For example, independent claims to A + X, A + Y, X + Y can be said to lack unity a priori as there is no subject matter common to all claims, see PCT Rule 13.2 and MPEP 1850 (II).

The inventions of groups 1-6 are drawn to multiple processes/methods that lack unity a priori as there is no subject matter common to all claims.

Group 1, has the technical feature of a method comprising the steps of (a) analyzing the expression profile of more than one mRNA and/or protein in a sample obtained from a mammal; and (b) selecting a therapy that comprises two or more compounds that each (i) decrease the expression level or activity of an mRNA or protein that has a higher than normal expression level in said mammal and/or (ii) increase the expression level or activity of an mRNA or protein that has a lower than normal expression level in said mammal

Groups 2-6 are drawn to additional processes/methods that comprise distinct steps from those claimed in Group 1.

Accordingly, Groups 1-6 are not so linked as to form a single general inventive concept and the finding of lack of unity is proper.

Applicant is advised that the reply to this restriction requirement to be complete must include an election of the invention to be examined even though the requirement is traversed.

Species Elections for Group 1

A. Claim 1 is generic to the following disclosed patentably distinct species of the form of expression profile:

1) mRNA profile

2) protein profile

3) mRNA and protein profile

B. Claim 1 is generic to the disclosed patentably distinct species of the molecules profiled. Applicants must elect more than one molecule from those in claimed in claim 19 or disclosed in Fig. 1G or Fig. 3.

C. Claim 1 is generic to the following disclosed patentably distinct species of disease:

1) cancer

2) angiogenesis related disease other than cancer

If Applicants elect species C2, angiogenesis related disease other than cancer, then Applicants must elect from group D.

D. Claim 1 is generic to the disclosed patentably distinct species of angiogenesis related diseases other than cancer listed in Figure 4. Applicants must elect one disease for examination.

E. Claim 1 is generic to the disclosed patentably distinct species of signal transduction inhibitor. Applicants must elect a signal transduction inhibitor from those in claimed in claims 12 or 13 or disclosed in Fig. 2A-G.

Species Elections for Group 2

A. Claim 2 is generic to the following disclosed patentably distinct species of the form of expression profile:

1) mRNA profile

2) protein profile

3) mRNA and protein profile

B. Claim 2 is generic to the disclosed patentably distinct species of the molecules profiled. Applicants must elect more than one molecule from those disclosed in Fig. 1G or Fig. 3.

C. Claim 2 is generic to the following disclosed patentably distinct species of disease:

1) cancer

2) angiogenesis related disease other than cancer

If Applicants elect species C2, angiogenesis related disease other than cancer, then Applicants must elect from group D.

D. Claim 2 is generic to the disclosed patentably distinct species of angiogenesis related diseases other than cancer listed in Figure 4. Applicants must elect one disease for examination.

Species Elections for Group 3

A. Claim 3 is generic to the following disclosed patentably distinct species of the form of expression profile:

1) mRNA profile

2) protein profile

3) mRNA and protein profile

B. Claim 3 is generic to the disclosed patentably distinct species of the molecules profiled. Applicants must elect more than one molecule from those disclosed in Fig. 1G or Fig. 3.

C. Claim 3 is generic to the following disclosed patentably distinct species of disease:

1) cancer

2) angiogenesis related disease other than cancer

If Applicants elect species C2, angiogenesis related disease other than cancer, then Applicants must elect from group D.

D. Claim 3 is generic to the disclosed patentably distinct species of angiogenesis related disease other than cancer listed in Figure 4. Applicants must elect one disease

Species Elections for Group 4

A. Claim 7 is generic to the following disclosed patentably distinct species of the form of expression profile:

1) mRNA profile

2) protein profile

3) mRNA and protein profile

B. Claim 7 is generic to the disclosed patentably distinct species of the molecules profiled. Applicants must elect one or more than one molecule from those in claimed in claim 19 or disclosed in Fig. 1G or Fig. 3.

C. Claim 7 is generic to the following disclosed patentably distinct species of disease:

1) cancer

2) angiogenesis related disease other than cancer

If Applicants elect species C2, angiogenesis related disease other than cancer, then Applicants must elect from group D.

D. Claim 7 is generic to the disclosed patentably distinct species of angiogenesis related disease other than cancer listed in Figure 4. Applicants must elect one disease for examination.

E. Claim 7 is generic to the disclosed patentably distinct species of signal transduction inhibitor. Applicants must elect a signal transduction inhibitor from those in claimed in claims 12 or 13 or disclosed in Fig. 2A-G.

Species Elections for Group 5

A. Claim 8 is generic to the following disclosed patentably distinct species of the form of expression profile:

1) mRNA profile

2) protein profile

3) mRNA and protein profile

B. Claim 8 is generic to the disclosed patentably distinct species of the molecules profiled. Applicants must elect one or more than one molecule from those disclosed in Fig. 1G or Fig. 3.

C. Claim 8 is generic to the following disclosed patentably distinct species of disease:

1) cancer

2) angiogenesis related disease other than cancer

If Applicants elect species C2, angiogenesis related disease other than cancer, then Applicants must elect from group D.

D. Claim 8 is generic to the disclosed patentably distinct species of angiogenesis related disease other than cancer listed in Figure 4. Applicants must elect one disease for examination.

E. Claim 8 is generic to the disclosed patentably distinct species of signal transduction inhibitor. Applicants must elect a signal transduction inhibitor from those disclosed in Fig. 2A-G.

Species Elections for Group 6

A. Claim 9 is generic to the following disclosed patentably distinct species of the form of expression profile:

1) mRNA profile

2) protein profile

3) mRNA and protein profile

B. Claim 9 is generic to the disclosed patentably distinct species of the molecules profiled. Applicants must elect one or more than one molecule from those disclosed in Fig. 1G or Fig. 3.

C. Claim 9 is generic to the following disclosed patentably distinct species of disease:

1) cancer

2) angiogenesis related disease other than cancer

If Applicants elect species C2, angiogenesis related disease other than cancer, then Applicants must elect from group D.

D. Claim 9 is generic to the disclosed patentably distinct species of angiogenesis related disease other than cancer listed in Figure 4. Applicants must elect one disease for examination.

E. Claim 9 is generic to the disclosed patentably distinct species of signal transduction inhibitor. Applicants must elect a signal transduction inhibitor from those disclosed in Fig. 2A-G.

In accordance with the decisions in *In re Harnisch*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984), restriction of a

Markush group is proper where the compounds within the group either (1) do not share a common utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility. In addition, a Markush group may encompass a plurality of independent and distinct inventions where two or more members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the other member(s) obvious under 35 USC 103. Since the decisions in *In re Weber*, 198 USPQ 328 (CCPA 1978) and *In re Hass*, 198 USPQ 334 (CCPA 1978), it is proper for the Office to refuse to examine that which applicants regard as their invention, if the subject matter in a claim lacks unity of invention, see MPEP 803.02.

The species are independent or distinct because as disclosed the different species have mutually exclusive characteristics for each identified species. In addition, these species are not obvious variants of each other based on the current record.

Further some of the species are related as combination and subcombination. Species in this relationship are distinct if it can be shown that (1) the patentability of the combination does not rely necessarily and solely on the patentability of any one subcombination and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the patentability of the combination does not rely necessarily and solely on the patentability of any one subcombination as clearly evidenced by the plural subcombinations claimed. Further, each of the subcombinations has utility by itself because each of the subcombinations is useful for screening for different variables and different markers. Thus the claims are distinct as required by MPEP 806.05(c).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J. Reddig whose telephone number is (571) 272-9031. The examiner can normally be reached on M-F 8:30 a.m.-5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on (571) 272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter J. Reddig, Ph.D.
Examiner
Art Unit 1642

SUSAN UNGAR, PH.D
PRIMARY EXAMINER

PJR